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## **The types of nightjars (Caprimulgidae) described by Sir Andrew Smith in the *Illustrations of the zoology of South Africa***

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Some of the earliest and most important explorations of the avifauna of southern Africa were undertaken by Dr (later Sir) Andrew Smith's expeditions between 1828 and 1829, 1832 and between 1834 and 1836 (Kirby 1965). Most of the new birds discovered during the latter expedition were described in a report to subscribers, although no nightjars were included (Smith 1836), and many of Smith's specimens were later sold at auction in London (Salvin 1880). Unfortunately, records of the dispersal of Smith's specimens were destroyed during the Second World War (Kirby 1965).

Smith (1845) described three new species of nightjar, *Caprimulgus natalensis*, *Caprimulgus rufigena* and *Caprimulgus lentiginosus* (now = *Caprimulgus tristigma lentiginosus*). They featured on plates 99–102 with accompanying text, in part 22 of the *Illustrations of the zoology of South Africa*, which appeared in March 1845 (Waterhouse 1880, Barnard 1950). In this work, Smith added footnotes to his descriptions, stating how many specimens he had in his possession and the localities or regions in which they had been collected.

Many of Smith's specimens, including a type of *C. natalensis*, were apparently sold to the British Museum (Sharpe 1906). However, the museum's registers list single types of *C. natalensis*, *C. rufigena* and *C. lentiginosus* as having been presented to the museum by Smith and their registration numbers suggest that they were received in 1848. The destination of Smith's remaining nightjar types does not appear to have been documented at the time of their dispersal. Salvin (1880) noted that some of Smith's South African specimens were prepared by the Verreaux brothers and were identifiable by their somewhat flattened posture and by a numbered brown paper label attached to one of the legs. However, Sharpe (1906) stated that Smith's collections were mounted and prepared by Jules & Alexis Verreaux.

Published type catalogues (Stone 1899, Warren 1966, van den Hoek Ostende *et al.* 1997) reveal that the locations of Smith's nightjar types are uncertain, and thus I now examine the issue in more detail.

## Materials and methods

I visited most of the major natural history museums in Europe and North America and carefully examined all specimens of *Caprimulgus natalensis*, *Caprimulgus rufigena* and *Caprimulgus lentiginosus*. I compared their data with the literature, museum registers and archive material where available. In the text, the following acronyms are used: The Natural History Museum (formerly The British Museum of Natural History), Tring, UK (BMNH); The Academy of Natural Sciences, Philadelphia, USA (ANSP) and the National Museum of Natural History, Leiden, Holland (RMNH).

### *Caprimulgus natalensis*

In Smith (1845), a male was illustrated on plate 99 and a description was provided in the accompanying text. Smith also noted the colours of the female as being similar to those of the male but not so deep or so bright. In a footnote, Smith revealed that the two specimens that he had in his possession were the only birds that he had seen and that they had been shot at dusk in the vicinity of Port Natal (now Durban). Smith visited Port Natal in 1832 (Clancey 1964, Kirby 1965).

Hartert (1892) listed two specimens, g and h, Port Natal, Sir A. Smith, as types of the species, but both are given as males. In Warren (1966), one syntype is listed

as BMNH 1848.3.31.1 (relaxed mount), an adult male near Port Natal collected and presented by A. Smith, and the other syntype is recorded as being in the same collection. This second specimen is BMNH 1846.10.24.6 (relaxed mount), an unsexed adult (= female based on Cleere 1998), collected at Port Natal and purchased from Argent, who was a dealer based in London (Sharpe 1906). Attached to the legs of this second specimen are two labels. One is a small British Museum metal tag, numbered 46.10.24.6, and the other is a small, brown paper label with the number 63a.

Stone (1899) listed as a cotype (a term no longer recognised by the International Commission of Zoological Nomenclature 1999) ANSP 21.884, a female from Port Natal that was presented to the Academy by Dr T. B. Wilson and was formerly in the Rivoli (Massena) collection, which was purchased in 1846. It had been marked 'Type de Smith' by J. Verreaux and was numbered Verreaux 2826. Finally, van den Hoek Ostende *et al.* (1997) listed RMNH 88383, an adult male collected Port Natal, South Africa by J. A. Wahlberg, as the holotype.

### *Caprimulgus rufigena*

In Smith (1845), a male was illustrated on plate 100 and a description was provided in the accompanying text. Smith also stated that the colours of the female were unknown. In a footnote, he noted that he had procured six males during his residence in South Africa, but no females, and that the species was chiefly found in the eastern districts of the colony.

Hartert (1892) listed two adult males, specimens z and a, that had been collected at Cape of Good Hope by Sir A. Smith, but failed to record either as types. In Warren (1966), one syntype is listed as BMNH 1838.3.13.3, adult male (relaxed mount), Cape of Good Hope, collected and presented by A. Smith. She also noted that four of the six syntypes were in the Academy of Natural Sciences, Philadelphia. The registration number is an error, the number actually being 1848.3.13.3.

Stone (1899) listed four cotypes (see above) as ANSP 21.830, male, Cape of Good Hope; ANSP 21.831, female, Cape of Good Hope; ANSP 21.834, juvenile male, Cape of Good Hope; and ANSP 21.835, male, Cape of Good Hope. All were presented to the Academy by Dr T. B. Wilson and were formerly in the Rivoli (Massena) collection. They were all marked 'Type de Smith' by J. Verreaux.

### *Caprimulgus lentiginosus*

In Smith (1845), a female was illustrated on plate 101 of *Illustrations of the zoology of South Africa* and a description was provided in the accompanying text. Smith also stated that the colours of the male were unknown. In his footnote, he confirmed that only two individuals were in his possession and that they had been procured in Great Namaqualand. Smith travelled to Great Namaqualand in 1828 (Kirby 1965).

Hartert (1892) listed specimen c, an adult female collected in South Africa by Sir A. Smith as a type of the species. In Warren (1966), one syntype is listed as



BMNH 1848.3.31.2, adult female, Great Namaqualand 1834–1836, collected and presented by A. Smith. She also noted that the other syntype was in the Academy of Natural Sciences, Philadelphia. The date given by Warren is obviously an error and should be 1828.

Stone (1899) listed as a cotype (see above) ANSP 21.839, a female from Cape of Good Hope that was presented to the Academy by Dr T. B. Wilson and was formerly in the Rivoli (Massena) collection. It had been marked 'Type de Smith' by J. Verreaux and was numbered Verreaux 2889.

## Discussion

It is clear from the above data that some of the specimens do not agree well with the descriptions given by Smith (1845), that there are more specimens of *C. natalensis* published as types than Smith actually collected. Determination of Smith's nightjar types is further hampered by the lack of adequate data accompanying some of the specimens.

It seems reasonable to assume that, where appropriate, specimens collected by Smith and presented by him to The Natural History Museum are genuine types, and a single specimen of each nightjar has been registered as such (Warren 1966). These specimens were erroneously listed as having been purchased and their registration numbers were given as 1848.3.21.1–3 instead of 1848.3.31.1–3 (Sharpe 1906). Most of Smith's nightjar types, however, were reported to be in The Academy of Natural Sciences, Philadelphia (Stone 1899). They had been marked 'Type de Smith' by Jules Verreaux and were in the Rivoli (Massena) collection when it was purchased by Dr T. B. Wilson in 1846 and presented to the Academy. It is known that when some of the early French collectors annotated their specimens with the word type, they simply meant that it was typical of the species, but 'Type de Smith' may suggest an actual type. In the catalogue of the Rivoli collection, none of Smith's new nightjars is listed by name, although the section on *Caprimulgus* finishes with 'Plus 45 individus formant 19 espèces indéterminées ou inédites de diverses localités' (Verreaux 1846). Verreaux was in South Africa at the same time as Smith and, indeed, assumed from him responsibility of the collections in the South African Museum in Cape Town.

Although Smith described *C. natalensis* from two specimens, a male and female, there are four listed in published type catalogues (Stone 1899, Warren 1966, van den Hoek Ostende *et al.* 1997). Of the two 'types' deposited in The Natural History Museum, BMNH 1848.3.31.1 was collected and presented by Smith and therefore appears to be the male syntype. The second specimen, BMNH 1846.10.24.6 is of less certain provenance and it remains unknown as to how the London dealer Argent came by this specimen or why the museum considered it a type. It is unsexed but appears to be a female. If this specimen is not the female syn-

type, then perhaps the validity of ANSP 21.884 in The Academy of Natural Sciences, Philadelphia, is supported. The specimen deposited in the National Museum of Natural History, Leiden, RMNH 88383, is clearly not the holotype and no reason is given as to why it is considered a type. This specimen came from the Swedish collector J. A. Wahlberg who visited Natal in 1839 (Clancey 1964), and the inclusion of this specimen in a type catalogue is therefore erroneous. A final point of interest may concern a mounted specimen held in the collection of the Muséum National d'Histoire Naturelle, Paris, received from J. Verreaux, possibly in 1837. It is a female with an old catalogue number, 5261, that was collected at Port Natal (Cap. B. Esperance), but it is not marked as a type and it is impossible to confirm its origin.

Smith based his description of *C. rufigena* on six males collected in South Africa, although precise localities were not given. As mentioned above, the male specimen BMNH 1848.3.13.3, collected by Smith and presented by him to The Natural History Museum, would appear to one of the types. There is a second specimen in the museum that was collected and presented by Smith, but which was not recognised as a type by either Hartert (1892) or Warren (1966). This specimen is BMNH 1863.3.10.11, an adult male collected at the Cape of Good Hope. One of the labels attached to this specimen is cardboard, elongated and octagonal, and is similar to a label attached to the type of *C. lentiginosus* (see below). On one side, it has the number 1, *Caprimulgus*, male, and is hand-coloured blue at one end. It seems likely that this specimen is also one of Smith's six types. Examination of the four 'types' in The Academy of Natural Sciences, Philadelphia, reveals that original labels are no longer attached to the specimens and only two males, ANSP 21830 and ANSP 21835, are noted as originating from Verreaux and have his number 2810. The status of the remaining two 'types' is questionable. ANSP 21834 is an immature male and ANSP 21831 is labelled as a female, but may be an immature male, and both therefore differ from the description given by Smith. Two other specimens, ANSP 21832 and ANSP 21897, arrived with the Rivoli (Massena) collection, but neither are types.

Smith described *C. lentiginosus* from two females collected in Great Namaqualand. As mentioned above, the female specimen BMNH 1848.3.31.2, collected by Smith and presented by him to The Natural History Museum, would appear to one of the types. In addition to two modern British museum labels attached to this specimen, there is an elongated, octagonal, cardboard label, which is similar to that attached to the specimen of *C. rufigena* BMNH 1863.3.10.11 (see above). The second 'type', ANSP 21.839, is more problematic. It was originally in the Rivoli (Massena) collection and was marked by Verreaux as 'Type de Smith', but it is labelled as having been collected at the Cape of Good Hope rather than Great Namaqualand.

I have been unable to locate any other 'Smith' nightjar specimens and suggest that a more accurate treatment of his nightjar types could be listed below (see appendix). It may also be of interest to confirm that I have not found any of Smith's specimens of *Caprimulgus europaeus* or *C. pectoralis* (Smith 1837, 1845, Kirby 1939, 1940).

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## APPENDIX

## Accepted types

BMNH1848.3.31.1	<i>Caprimulgus natalensis</i>	male	Port Natal 1832	leg. Smith
BMNH1948.3.31.2	<i>Caprimulgus lentiginosus</i>	female	Great Namaqualand 1828	leg Smith
BMNH1848.3.13.3	<i>Caprimulgus rufigena</i>	male	Cape of Good Hope	leg. Smith
BMNH1863.3.10.11	<i>Caprimulgus rufigena</i>	male	Cape of Good Hope	leg. Smith

## Doubtful types

BMNH1846.10.24.6	<i>Caprimulgus natalensis</i>	female	Port Natal	Argent
ANSP21.884	<i>Caprimulgus natalensis</i>	female	Port Natal	Verreaux 2826
ANSP21.830	<i>Caprimulgus rufigena</i>	male	Cape of Good Hope	Verreaux 2810
ANSP21.835	<i>Caprimulgus rufigena</i>	male	Cape of Good Hope	Verreaux 2810
ANSP21.839	<i>Caprimulgus lentiginosus</i>	female	Cape of Good Hope	Verreaux

## Rejected types

RMNH88383	<i>Caprimulgus natalensis</i>	male	Port Natal	leg. Wahlberg
ANSP21.831	<i>Caprimulgus rufigena</i>	female?	Cape of Good Hope	Verreaux
ANSP21.834	<i>Caprimulgus rufigena</i>	imm. male	Cape of Good Hope	Verreaux

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## The voice and bill length of Karamoja *Apalis* *Apalis karamojae* are atypical of the genus

by Philip Shaw, Elias Mungaya, Njano Mbilinyi &  
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Karamoja *Apalis* *Apalis karamojae* is a globally threatened (Vulnerable), restricted-range warbler (BirdLife International 2000, Stattersfield *et al.* 1998), discovered in Karamoja District, Uganda, in 1919, and in Tabora Region, Tanzania, in 1961 (Collar & Stuart 1985). The latter population has been recognised subspecifically, as *A. k. stronachi* (Stuart & Collar 1985).

In Tanzania, the species' main stronghold is thought to lie in the Wembere Steppe, an area of seasonally inundated grassland on the border between Tabora and Singida regions (Collar & Stuart 1985). Since the early 1990s the species has also